

60 microns, outer 53 microns; inner pair on posterior margin, 33 microns.

Head wider than long. Eyes prominent, pilose; ocelli well developed. A pair of small setæ behind each ocellus and series of four behind each eye, the second and fourth longest. Antennal segments three and four elongate ovate, only slightly enlarged toward tips, not conical or cylindrical; sense cones on these segments lanceolate, two-segmented, short.

Prothorax longer and wider than head; setæ on anterior angles directed forward; a series of seven on either side along posterior margin, one and three on angles longest, inner pair (six and seven) with base of seven close but anterior to six. Fore tarsus armed with a strong hook-shaped tooth. Wings broad at base, otherwise long, narrow, pointed at tips; costa with 28 spines and well developed fringe, fore vein with 21 and hind vein with 17 regularly placed spines.

Posterior margin of abdominal segments, including eighth, without fringe hairs.

Type material: Male holotype, 8 female paratypes taken in blossoms of madrone and manzanita, April, 1932. All types in author's collection.

Type locality: Grass Valley, Nevada County, California.

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## DERMAPTERA IN THE COLLECTION OF THE CALIFORNIA ACADEMY OF SCIENCE

BY MORGAN HEBARD

We were recently asked to study the present collection and among the one hundred and thirty-five specimens a number of interesting records have been found. Thirty-nine species are here considered, none of which are new. Two synonyms are suggested. We wish to thank Mr. E. P. Van Duzee for the opportunity to study this material.

### PYGIDICRANIDÆ

*Diplatys serverus* Bormans Orizaba, Vera Cruz, Mexico, 1 ♂.

*Pyge vitticollis* (Stal) Victoria Park, Hong Kong, China, II, 17, 1929, (G. Linsley), 1 ♀, 1 large juv. ♀. The adult measures; total length 19, length of tegmen 2.3; length of forceps 4.1 mm.

*Pyragra fuscata* (Serville) Porto Bello, Panama, III, 17, 1930, (T. O. Zschokke; XX Plantation), 1 juv.

*Echinosoma sumatranum* (Haan) Mt. Poi, Sarawak, Borneo, 2000, 5450 and 6000 feet, (E. Mjoberg), 2 ♀, 1 large juv.

*Echinosoma yorkense* Dohrn North Queensland, Australia, X, 4, 1920, (J. A. Kusche), 2 ♀.

## LABIDURIDÆ

*Allostethus indicum* (Burmeister) Mt. Poi, Sarawak, Borneo, (E. Mjoberg), 2 ♂, 1 ♀, 1 juv.

*Psalis americana* (Beauvois) Gatun, Canal Zone, Panama, III, 1930, (T. O. Zschokke; Tres Rios Plantation), 1 large juv.

*Anisolabis maritima* (Géné) Nanaimo, British Columbia, VI, 26, 1920, (E. C. VanDyke), 1 ♂, 1 ♀. Yakushima, Japan, IV, 1912. (J. C. Thompson), 3 ♂. Kagoshima, Japan, III, 1912, (J. C. Thompson), 1 ♂ (stenolabic). Ikishima, Japan, X, 1, 1910, (J. C. Thompson), 1 juv. ♀. Lake Biwa, Japan, VII, 30, 1923, (E. C. VanDyke), 1 large juv. ♀.

*Anisolabis eteronoma* Borelli Mt. Tantalus, Oahu, Hawaiian Islands, I, 10, 1923, (E. C. VanDyke), 1 ♂ (small and pallid), 2 ♀ (normal).

*Anisolabis marginalis* Dohrn Mogi, Japan, VII, 7, 1923, (E. C. VanDyke), 1 ♀. Nanking, Kiang-Su, China, III, 31, 1923, (E. C. VanDyke), 2 ♂.

*Euborellia punctata* Borelli Nanking, Kiang-Su, China, III, 23 and 31, 1923, (E. C. VanDyke), 2 ♀.

The similarity to *Gonolabis* noted by Borelli is so marked that his generic assignment of the species may be open to question.

*Euborellia annulipes* (Lucas) Acapulco, Guerrero, Mexico, X, 28, 1909, (F. X. Williams, at quarantine), 1 ♀. Masa Tierra Island, Chile, XII, 4, 1913, (R. H. Beck), 1 ♂, 2 ♀. Yakushima, Japan, IV, 1912, (J. C. Thompson), 1 ♀.

*Euborellia plebeja* (Dohrn) Kagoshima, Japan, III, 1912, (J. C. Thompson), 1 ♂, 1 ♀, 1 juv. Kobe, Japan, III and X, 1909, 2 ♂ (one macropterous), 1 juv. Nanking, Kiang-Su, China, III, 23 and IV, 14, 1923, (E. C. VanDyke), 2 ♂, 1 ♀.

The limb annuli are almost obsolete in the Kobe and Nanking adults, very weak in the Kagoshima male and moderately pronounced in the others. The antennal joints are usually as characterized for *pallipes* Shiraki and we feel that that name may well prove a synonym, as *stali* Dohrn and *minuta* Caudell already have done. The macropterous condition is again recognized with interest.

*Nala lividipes* (Dufour) Kobe, Japan, X, 1909, 1 ♀.

*Labidura riparia* (Pallas) Kirin, Manchuria, IX, 7, 1923, (E. C. VanDyke), 1 ♂ (brachypterous), Riparia variant. Hoiryong, Corea, V, 21, 1911, (J. C. Thompson), 1 ♂, 2 ♀ (brachypterous), Japonica variant. Kobe, Japan, VI, 1909, 1 ♂, 1 ♀ (brachypterous), Japonica variant. Koro-en, Japan, III, 1909, 1 ♀ (brachypterous), Japonica variant.

#### LABIIDÆ

*Vostox brunneipennis* (Serville) Orizaba, Vera Cruz, Mexico, VII, 1897, (A. Koebele), 1 ♀.

*Spongovostox apicedentatus* (Caudell) Phoenix, Arizona, IV, 28, 1924, (J. O. Martin), 1 ♀. Maricopa, III, 20, 1924, (J. O. Martin), 1 ♂. Tucson, Arizona, IX, 5, 1928, (E. R. Leach), 2 ♀. Sonoita Creek, Patagonia, Arizona, X, 14, 1927, (J. A. Kusche), 1 ♂, 1 ♀.

*Chætospania australica* (Bormans) Northern Queensland, Australia, X, 4, 1920, (J. A. Kusche), 3 ♂.

*Sphingolabis hawaiiensis* (Bormans) Suva, Fiji Islands, XI, 3, 1899, (A. Koebele), 1 ♀.

*Labia arcuata* Scudder Gatun, Canal Zone, Panama, III, 1930, (T. O. Zschokke; Tres Rios Plantation), 1 ♂. Barro Colorado Island, Canal Zone, Panama, III, 31, 1930, (T. O. Zschokke), 1 ♀. Porto Bello, III, 17, 1930, (T. O. Zschokke; XX Plantation), 1 ♂.

*Labia dorsalis* (Burmeister) Gatun, Canal Zone, Panama, III, 1930, (T. O. Zschokke; Tres Rios Plantation), 1 ♂, 1 ♀. Porto Bello, III, 17, 1930, (T. O. Zschokke; XX Plantation), 1 ♂.

*Marava wallacei* ((Dohrn) North Queensland, Australia, X, 4, 1920, (J. A. Kusche), 1 ♂, 1 ♀ (brachypterous).

#### CHELISOCHIDÆ

*Hamaxas feæ* (Bormans) Mt. Poi, Sarawak, Borneo, (E. Mjöberg), 1 ♀.

*Proreus sobrinus* (Bormans) Mt. Poi, Sarawak, Borneo, (E. Mjöberg), 1 ♂.

Marked exactly like the Sumatran male recorded by us in 1927 and with pygidium the same, this specimen has the ultimate tergite with meso-distal pair of teeth smaller and laterad on each side with a curved ridge instead of two teeth. The forceps are more stenolabic, with no proximal flange, teeth even

smaller and, unlike that specimen, with a trace of meso-distal dorso-internal lamellation and a small subapical ventro-internal tooth.

*Proreus simulans* (Stal) Okinawa, Japan, IV, 1912, (J. C. Thompson), 1 ♀ (brachypterous). Nanking, Kiang-Su, China, III, 21 to IX, 25, 1923, (E. C. VanDyke), 4 ♂ (brachylabic), 1 ♀ (all brachypterous).

*Chelisochella superba* (Dohrn) Borneo, (E. Mjoberg), 1 ♂ (moderately macrolabic), 5 ♀ (macrolabic).

The female of this species has every appearance of males in other groups.

*Adiathetus shelfordi* Burr In 1929 our corrections for this species were twice at fault. Burr (not Shelford) figured the species in 1900, the male as his synonym *hercules*, the female (not a male as he supposed) as *shelfordi*.

The specimens in the author's collection from Pontianak, Borneo, are a very similar pair, not a macrolabic and a brachylabic male as we supposed. The present insect shows much the same peculiarities as *Chelisochella superba* in that the specialized macrolabic forceps of the female resemble the specialization peculiar to males in other groups. This is extremely unusual in the Earwigs.

#### FORFICULIDÆ

*Anechura japonica* (Bormans) Mokansan, Che-Kiang, China, IX, 22, 1927, (Mrs. Doris E. Wright), 1 ♂.

This specimen has sharp rugose cones, directed dorso-externally, above the bases of the forceps. The forceps are moderately and evenly curved with a large acute-angulate lamellate tooth at end of proximal third on inner margin directed ventro-internally. The limbs are uniform testaceous with a reddish tinge. The species looks much like an *Apterygida* but is decidedly more robust.

*Anechura vara* (Scudder) Amecameca, Mexico, VI, 6 and 8, 1897, (A. Koebele), 1 ♂, 1 ♀.

*Taipinia crinitata* Shiraki We agree with Shiraki in considering that his *Taipinia*, described in 1908, should be recognized. It is indeed close to *Anechura*, but the features which he gives in 1928, the pronotum considerably instead of somewhat smaller than the head (and in *crinitata* the spined pygidium), warrant generic recognition.

Taihorinsho, Formosa, IX, 1909, (H. Sauter), 1 ♂, 2 ♀, [Hebard Cln.]. Tainan, Formosa, IV, 1 ♂, 1 ♀, determined by Burr, [Hebard Cln.].

*Doru lineare* (Eschscholtz) Las Mochis, Sinaloa, Mexico, VI, 12, 1922, 1 ♀. Medellin, Antioquia, Colombia, (Mrs. C. S. Capp), 1 ♂.

*Doru aculeatum aculeatum* (Scudder) Sandusky, Ohio, VI, 1, 1924, (G. Linsley), 1 ♀.

*Forficula senegalensis* Serville Kijobe, Kenya, British East Africa, (F. Tose), 3 ♂ (brachylabic).

*Forficula vicaria* Semenoff Certainly *F. burriana* Semenoff is either a race or phase of *vicaria*, not a valid species.

Kirin, Manchuria, IX, 7, 1923, (E. C. VanDyke), 3 ♂. Weisohn, Manchuria, VIII, 31 and IX, 1, 1923, (E. C. VanDyke), 2 ♀. Fune, Corea, V, 29, 1911, (J. C. Thompson), 1 ♀. Nanking, Kiang-Su, China, IX, 10, 1923, (E. C. VanDyke), 1 ♂.

*Forficula auricularia* (Linnæus) Corvallis, Oregon, VI, 12, 1925, (E. P. Van Duzee), 1 juv. Poso Creek, Kern County, California, VI, 10, 1929, (G. D. Hanna), 4 ♂ (medium small to small, brachylabic). New Zealand, (A. Koebele), 3 ♀.

*Forficula scudderi* Bormans Semenoff's *robusta* is a synonym, as indicated by Shiraki in 1928. Burr apparently did not consider priority when he indicated the reverse synonymy in 1911.

Weisohn, Manchuria, VIII, 31, 1923, (E. C. VanDyke), 1 ♀. Kikouai, Yezo, Japan, VIII, 1910, (J. C. Thompson), 1 ♀.

*Forficula mikado* Burr Otaru, Hokkaido, Japan, VIII, 1910, (J. C. Thompson), 1 ♂ (very dark, brachylabic). Kikouai, Yezo, Japan, VIII, 1910, (J. C. Thompson), 1 ♂ (dark, brachylabic). Sapporo, Hokkaido, Japan, VII, 27, 1923, (E. C. VanDyke), 1 ♀ (pale, teneral).

*Opisthocosmia centurio* Dohrn Mt. Poi, Sarawak, Borneo, (E. Mjoberg), 1 ♀.

*Cordax forcipatus* (Haan) Mt. Poi, Sarawak, Borneo, (E. Mjoberg), 1 ♂. Borneo, (E. Mjoberg), 2 ♂, 5 ♀.

These specimens, though somewhat smaller and darker than our Sumatran individuals, have a whitish antennal annulus occupying part of two joints.

*Paracosmia tolteca* (Scudder) Orizaba, Vera Cruz, Mexico, VII, 1897, (A. Koebele), 3 ♀.